

What is claimed is:

1. An antenna circuit in which a plurality of matching circuits are switched to perform impedance matching of an antenna,

wherein each of said matching circuits has an optimal impedance corresponding to a plurality of external environmental conditions affecting said antenna and the switching of said matching circuits is controlled according to the external environmental conditions of said antenna.

2. An antenna circuit according to claim 1, wherein the switching of said matching circuits is controlled according to the detection of the external environmental conditions affecting the antenna.

3. An antenna circuit according to claim 2, wherein said plurality of external environmental conditions include: a free space mode; a conductor or dielectric proximity mode; and a conductor or dielectric separation mode.

4. An antenna circuit according to claim 3, having a plurality of antennas and, corresponding to each of said plurality of antennas, comprising a plurality of groups, each of which includes said plurality of matching circuits,

wherein said plurality of groups of the matching circuits are selected according to the use of the pertinent antenna.

5. An antenna circuit according to claim 4, wherein said plurality of matching circuits are provided in a mobile wireless communications device equipped with said antennas.

6. An antenna circuit according to claim 5, wherein said plurality of external environmental conditions include: a call waiting mode; a voice call mode; and a hands-free mode.

7. A wireless communication device comprising an antenna circuit that includes an antenna and matching

circuits and switchably connects said antenna circuit to a transmitting unit or a receiving unit, wherein

said antenna circuit has a plurality of the matching circuits having optimal impedances, each of which corresponds to a plurality of external environmental conditions affecting said antenna, and

the switching of said matching circuits is controlled according to the external environmental conditions of said antenna.

8. A wireless communication device according to claim 7, wherein each of said matching circuits has a detecting unit for detecting the external environmental conditions affecting said antenna.

9. A wireless communication device according to claim 8, wherein the external environmental conditions detected by said detecting unit include: a free space mode; a conductor or dielectric proximity mode; and a conductor or dielectric separation mode.

10. A wireless communication device according to claim 9, wherein said transmitting unit or receiving unit is switchably connected to said antenna circuit so as to perform mobile wireless communication,

wherein said external environmental conditions detected by said detecting unit include: a call waiting mode; a voice call mode; and a hands-free call mode.

11. A wireless communication device according to claim 10, having a plurality of antennas and, corresponding to each of said plurality of antennas, comprising a plurality of groups, each of which includes said plurality of matching circuits,

wherein said plurality of groups of the matching circuits are selected according to the use of the pertinent antenna.

12. An antenna circuit according to claim 2, having a plurality of antennas and, corresponding to each of said plurality of antennas, comprising a plurality of

groups, each of which includes said plurality of matching circuits,

wherein said plurality of groups of the matching circuits are selected according to the use of the pertinent antenna.

13. An antenna circuit according to claim 11, wherein said plurality of matching circuits are provided in a mobile wireless communications device equipped with said antennas.

14. An antenna circuit according to claim 12, wherein said plurality of matching circuits are provided in a mobile wireless communications device equipped with said antennas.

15. A wireless communication device according to claim 8, wherein said transmitting unit or receiving unit is switchably connected to said antenna circuit so as to perform mobile wireless communication,

wherein said external environmental conditions detected by said detecting unit include: a call waiting mode; a voice call mode; and a hands-free call mode.

16. A wireless communication device according to claim 15, having a plurality of antennas and, corresponding to each of said plurality of antennas, comprising a plurality of groups, each of which includes said plurality of matching circuits,

wherein said plurality of groups of the matching circuits are selected according to the use of the pertinent antenna.